WHAT IS CLAIMED IS

5

    1.   An image recognition system comprising:

    an examining part which examines as to how much input image parts resemble a predetermined figure comprising a plurality of elements, and gives a first

10  score on each image part as to how much it resembles to the element of the predetermined figure, and gives a second score on the image parts as to how much a positional relationship therebetween resembles that of the elements of the predetermined figure; and

15    a determining part which determines as to whether or not the input image parts coincide with the predetermined figure by using the first respective scores and the second score synthetically.

20

    2.   The system as claimed in claim 1, wherein:

    said examining part comprises a measurement

25  part which measures the number of pixels each having a

gray-scale level higher than a predetermined threshold

on a foreground part, and measures the same on a

background part of each image part, and a first scoring

part which gives a score as to relationship between the

5    thus-measured numbers of pixels.

10        3.   The system as claimed in claim 2, wherein:

said measurement part does not measure the

number of pixels on the background part near the

boundary with the foreground part when the measured

number of pixels on the foreground part is larger than a

15   predetermined value.

20        4.   The system as claimed in claim 1, wherein

said examining part examines symmetry on each image part.

25        5.   The system as claimed in claim 1, wherein

said examining part examines area balance on each image
part.

5

6. The system as claimed in claim 1, wherein
said examining part examines angular periodicity on each
image part.

10

7. The system as claimed in claim 1, wherein
15 said examining part gives a plurality of primary scores
on each image part with respect to various
characteristic factors, and then, gives a final score
thereon by combining the plurality of primary scores
according to a predetermined manner.

20

8. The system as claimed in claim 1, further
25 comprising a selecting part which selects one of a

plurality of image parts to be sent to the determining

part when the plurality of image parts are present less

than a predetermined distance from each other.


5


     9.   The system as claimed in claim 1, wherein:

     said determining part calculates a difference

10  between an ideal arrangement of the respective elements

of the predetermined figure and an actually measured

arrangement of the respective input image parts.


15


     10.   The system as claimed in claim 1,

wherein:

     said determining part sums the total score on

20  the respective input image parts and a score as to how

much the arrangement of the respective image parts

resembles that of the respective elements of the

predetermined figure.


25

11.  An image recognition method comprising the steps of:

a) examining as to how much input image parts resemble a predetermined figure comprising a plurality of elements, and giving a first score on each image part as to how much it resembles to the element of the predetermined figure, respectively, and giving a second score on the image parts as to much a positional relationship therebetween resembles that of the respective elements of the predetermined figure; and

b) determining as to whether or not the input image parts coincide the predetermined figure by using the first and second scores synthetically.

12.  The method as claimed in claim 11, wherein:

said step a) comprises the steps of a1) measuring the number of pixels each having a gray-scale level higher than a predetermined threshold on a foreground part, and measuring the same on a background part of each image part, and a2) giving a score as to relationship between the thus-measured numbers of pixels.

13.  The method as claimed in claim 12, wherein:

said step a1) does not measure the number of pixels on the background part near the boundary with the foreground part when the measured number of pixels on the foreground part is larger than a predetermined value.

14.  The method as claimed in claim 11, wherein said step a) examines symmetry on each image part.

15.  The method as claimed in claim 11, wherein said step a) examines area balance on each image part.

16.  The method as claimed in claim 11,

wherein said step a) examining angular periodicity on
each image part.

5

17.   The method as claimed in claim 11,
wherein said step a) gives a plurality of primary scores
on each image part with respect to various factors, and
10   then, gives a final score thereon by combining the
plurality of primary scores according to a predetermined
manner.

15

18.   The method as claimed in claim 11,
further comprising the step c) of selecting one of a
plurality of image parts to be processed by said step b),
20   when the plurality of image parts are present less than
a predetermined distance from each other.

25

19. The method as claimed in claim 11, wherein:

said step b) calculates a difference between an ideal arrangement of the respective elements of the predetermined figure and an actually measured arrangement of the respective input image parts.

10

20. The method as claimed in claim 11, wherein:

said step b) sums the total score on the respective input image parts and a score as to how much the arrangement of the respective image parts resembles that of the respective elements of the predetermined figure.